Claims

[c1]

1.A method of forming an extruded thin-walled article comprising:
providing a polymeric binder system comprising a substantially homogeneous
solution of a polymeric binder and an organic solvent;

44B

adding a ceramic or metal powder to said polymeric binder system to form a mixture;

evaporating said organic solvent from said mixture; and extruding the remaining mixture from a die to form a thin-walled green article.

[c2]

2. The method of claim 1 further including heating said extruded thin-walled green article to burn-off said binder and to sinter the article.

[c3] {\bigvery \sqrt{}

3. The method of claim 1 wherein said polymeric binder comprises a thermoplastic block copolymer, a first thermoplastic polymer, a second thermoplastic polymer different from said-first thermoplastic polymer, and a plasticizer.



4. The method of claim 3 wherein said thermoplastic block copolymer comprises a copolymer of styrene and butadiene.

(c5]

5. The method of claim 3 wherein said first thermoplastic polymer comprises polystyrene.

[c6] [N7] 6.The method of claim 3 wherein said second thermoplastic polymer comprises polyindene.

7. The method of claim 3 wherein said polymeric binder further includes an antioxidant.

[c8]

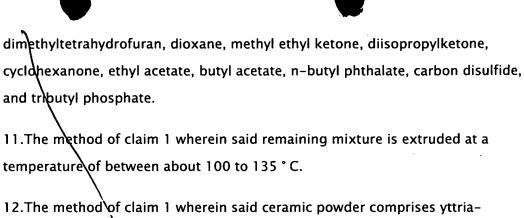
8. The method of claim 3 wherein said plasticizer comprises at least one oil and at least one wax.

[c9]

9. The method of claim 1 wherein said solvent is tolue e or tetrahydrofuran.

[c10]

10. The method of claim 1 wherein said solvent is selected from cyclohexane, methylcyclohexane, benzene, ethylbenzene, styrene, lower chlorinated aliphatic hydrocarbons, tetrahydrofurfuryl alcohol, phenol/acetone,



[c12] 12.The method of claim 1 wherein said ceramic powder comprises yttriastabilized zirconia

[c13] a.B

[c16]

[c17]

[c20]

[c21]

[c11]

13. The method of claim 1 wherein said metal precursor powder comprises nickel oxide plus yttria stabilized zirconia.

[c14] 14.A thin-walled article formed by the method of claim 2.

[c15] / 15.The thin-walled article of claim 14 wherein said article is tubular in shape.

16. A method of making a polymeric binder system for use in extruding thin-walled articles comprising:
providing a polymeric binder; and
dissolving said polymeric binder in an organic solvent to form a substantially homogeneous liquid.

17. The method of claim 16 wherein said polymeric binder comprises a thermoplastic block copolymer, a first thermoplastic polymer, a second thermoplastic polymer different from said first thermoplastic polymer, and a plasticizer.

18. The method of claim 17 wherein said thermoplastic block copolymer comprises a copolymer of styrene and butadiene.

19.The method of claim 17 wherein said first thermoplastic polymer comprises polystyrene.

20. The method of claim 17 wherein said second thermoplastic polymer comprises polyindene.

21. The method of claim 17 wherein said polymeric binder further includes an



[c27]



antioxidant.

[c22]	22.The method of claim 17 wherein said plasticizer comprises at least one oil
	and at least one wax.

- [c23] 23. The method of claim 17 wherein said solvent is toluene or tetrahydrofuran.
- 24.A polymekic binder system for use in extruding a thin-walled article [c24] comprising: a polymeric binder comprising a thermoplastic block copolymer, a first thermoplastic polymer, a second thermoplastic polymer different from said first thermoplastic polymer, and a plasticizer; and an organic solvent.
- 25. The polymeric binder system of claim 24 wherein said organic solvent is [c25] toluene or tetrahydrofuran.
- [c26] 26. The polymeric binder system of claim 24 wherein said organic solvent has been substantially evaporated from said system.
 - 27.A composition for use in extruding a thin-walled article comprising: a mixture of a polymeric binder system comprising a thermoplastic block copolymer, a first thermoplastic polymer, a second thermoplastic polymer different from said first thermoplastic polymer, a plasticizer, and an organic solvent; and a ceramic or metal powder; wherein said organic solvent has been substantially

evaporated from said system.